

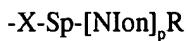
WHAT IS CLAIMED IS:

Claim 2628

1. A modified pigment product comprising a pigment having attached a) at least one steric group and b) at least one organic ionic group and at least one amphiphilic counterion, wherein said amphiphilic counterion has a charge opposite to that of said organic ionic group.

5

2. The modified pigment product of claims 1, wherein said steric group comprises the formula:



wherein X is attached to the pigment and comprises at least an arylene group or at least an

10 alkylene group, Sp represents a spacer group, N⁺Ion comprises at least one type of non-ionic group, R is hydrogen or comprises an aromatic group or an alkyl group, and p represents an integer of from 1 to 500.

3. The modified pigment of claim 2, wherein N⁺Ion is a C₁-C₁₂ alkyl group or a C₁-C₁₂

15 alkylene oxide group.

4. The modified pigment product of claim 2, wherein said non-ionic group further comprises a functional group.

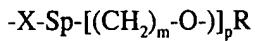
20 5. The modified pigment product of claim 2, wherein said non-ionic group is a glycol group.

6. The modified pigment product of claim 2, wherein X is an aromatic group.

7. The modified pigment product of claim 2, wherein p is 1 to 50.

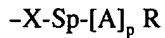
25

8. The modified pigment product of claim 1, wherein said steric group comprises the formula:



wherein X comprises an arylene group or an alkylene group, Sp represents a spacer group, m is 30 an integer of from 1 to 12, p is an integer from 1 to 500, and R is hydrogen or comprises an alkyl group or an aromatic group.

9. The modified pigment product of claim 1, wherein said steric group comprises the formula:



wherein X is attached to the pigment and comprises at least an arylene group or at least an

5 alkylene group; Sp represents a spacer group, A represents an alkylene oxide group of from about 1 to about 12 carbons; p represents an integer of from 1 to 500; and R represents hydrogen, a substituted or unsubstituted alkyl group or a substituted or unsubstituted aromatic group wherein A can be the same or different when p is greater than 1.

10 10. The modified pigment product of claim 9, wherein X is an aromatic group.

11. The modified pigment product of claim 9, wherein X is substituted with at least one functional group.

15 12. The modified pigment product of claim 9, wherein X is substituted with a carboxylic group or a sulfonate group.

13. The modified pigment product of claim 9, wherein p is from 1 to 25.

20 14. The modified pigment product of claim 9, wherein p is from 26 to 50.

15. The modified pigment product of claim 9, wherein R is an aromatic group.

16. The modified pigment product of claim 9, wherein m is 2, p is 44-45, R is a methyl group, and X is a benzoyl group.

17. The modified pigment product of claim 9, wherein m is 2, p is 22, R is a methyl group, and X is a benzoyl group.

30 18. The modified pigment product of claim 9, wherein m is 2, p is 44-45, R is hydrogen, and X is a benzoyl group.

19. The modified pigment product of claim 9, wherein m is 2, p is 7, R is a methyl group, and X is a benzoyl group.

20. The modified pigment product of claim 1, wherein said steric group comprises the formula:

-X-Sp-[polymer]R,

wherein X is attached to the pigment and comprises at least an arylene group or at least an

5 alkylene group; Sp represents a spacer group, "polymer" comprises repeating monomer groups or multiple monomer groups or both, optionally having at least one -X' group; R represents hydrogen, a bond, or comprises at least an alkyl group or at least an aromatic group; wherein X' comprises at least an aromatic group or at least an alkyl group, and each X' and X can be the same or different; and the total amount of monomer groups that comprise "polymer" is not
10 greater than about 500 monomer repeating units, and when R represents a bond, R optionally bonds to said pigment.

21. An ink composition comprising a) at least one liquid vehicle; b) at least one modified pigment product of claim 1.

15

22. The ink composition of claim 21, wherein said liquid vehicle is aqueous.

23. The ink composition of claim 21, wherein said liquid vehicle is non-aqueous.

20

24. The ink composition of claim 21, wherein said ink composition is an inkjet ink composition.

25

25. The ink composition of claim 21, further comprising at least one humectant, at least one binder, at least one dye, at least one biocide, at least one penetrant, at least one surfactant, or combinations thereof.

26. The ink composition of claim 21, wherein said pigment is carbon black, graphite, vitreous carbon, finely-divided carbon, activated carbon, activated charcoal, or mixtures thereof.

30

27. The ink composition of claim 21, wherein said pigment is carbon black.

28. The ink composition of claim 21, wherein said pigment comprises a white pigment, a black pigment, a blue pigment, a brown pigment, a cyan pigment, a green pigment, a violet pigment, a magenta pigment, a red pigment, a yellow pigment, shades thereof, or combinations thereof.

5

29. A printing plate comprising: a substrate, a protective layer located onto said substrate, and an infrared or near-infrared radiation-absorptive layer located on said protective layer, wherein said radiation-absorptive layer comprises at least one modified pigment of claim 1.

10 30. A method of imaging a lithographic printing plate of claim 29, comprising selectively exposing the plate to a laser output in a pattern representing an image to selectively remove or chemically modify at least the radiation-absorptive layer defining the pattern.

15 31. The method of claim 29, further comprising subjecting the plate to a solvent capable of removing portions of the imaged layer(s) defining the pattern.

0957228-09200